Preliminary

Facility Name: American Cyanamid Warners Plant

Location: Linden, Union County

EPA Region: II

Person(s) in Charge of the Facility:

Name of Reviewer: C. Sullivan Date: 7/12/88

General Description of the Facility:

(For example: landfill, surface impoundment, pile, container; types of hazardous substances; location of the facility; contamination route of major concern; types of information needed for rating; agency action, etc.)

Operating manufacturer of pesticides, water treatment chemical and mining products. Extensive history of spills to ground, air, and surface water. 1986 Search warrant and investigation indicated at least 37 negligent discharges to Arthur Kill and Rahway River. Numerous Orders issued

Scores: S_M = 9.00 (S_{gw} = 4.90 S_{sw} = 14.77 S_a = 0)

S_{FE} =

S_{DC} =

HRS COVER SHEET

GROUND WATER ROUTE WORK SHEET

	Rating Factor	Assigned Value (Circle One)	Multiplier	Score	Max. Score	Ref. (Section)
1	Observed Release	(0) 45	1	0	45	3.1
	If observed release is given a score of 45, proceed to line 4. If observed release is given a score of 0, proceed to line 2.					
2	Route Characteristics					3.2
	Depth to Aquifer of Concern	0 1 2 (3)	2	6	6	
	Net Precipitation	0 1 (2) 3	1	2	3	
	Permeability of the Unsaturated Zone	0 1 (2) 3	1	2	3	
	Physical State	0 1 2 (3)	1	3	3	
	Total Route Characteristics Score			13	15	
3	Containment	0 1 2 (3)	1	3	3	3.3
4	Waste Characteristics					3.4
	Toxicity/Persistence	0 3 6 9 12 15 (18)	1	18	18	
	Hazardous Waste Quantity	0 1 2 3 4 5 (6) 7 8	1	6	8	
	Total Waste Characteristics Score			24	26	
5	Targets					3.5
	Ground Water Use	0 (1) 2 3	3	3	9	
	Distance to Nearest Well/Population Served	(0) 4 6 8 10 12 16 18 20 24 30 32 35 40	1	0	40	
	Total Targets Score			3	49	
6	If line 1 is 45, multiply 1 x 4 x 5 If line 1 is 0, multiply 2 x 3 x 4 x 5			2808	57.330	
7	Divide line 6 by 57,330 and multiply by 100	S_{gw} = 4.90				

SURFACE WATER ROUTE WORK SHEET

	Rating Factor	Assigned Value (Circle One)	Multiplier	Score	Max. Score	Ref. (Section)
1	Observed Release	(0) 45	1	0	45	4.1
	If observed release is given a value of 45, proceed to line 4. If observed release is given a value of 0, proceed to line 2.					
2	Route Characteristics					4.2
	Facility Slope and Intervening Terrain	(0) 1 2 3	1	0	3	
	1-yr. 24-hr. Rainfall	0 1 (2) 3	1	2	3	
	Distance to Nearest Surface Water	0 1 2 (3)	2	6	6	
	Physical State	0 1 2 (3)	1	3	3	
	Total Route Characteristics Score			11	15	
3	Containment	0 1 2 (3)	1	3	3	4.3
4	Waste Characteristics					4.4
	Toxicity/Persistence	0 3 6 9 12 15 (18)	1	18	18	
	Hazardous Waste Quantity	0 1 2 3 4 5 (6) 7 8	1	6	8	
	Total Waste Characteristics Score			24	26	
5	Targets					4.5
	Surface Water Use	0 1 (2) 3	3	6	9	
	Distance to a Sensitive Environment	0 1 2 (3)	2	6	6	
	Population Served/Distance to Water Intake Downstream	(0) 4 6 8 10 12 16 18 20 24 30 32 35 40	1	0	40	
	Total Targets Score			12	55	
6	If line 1 is 45, multiply 1 x 4 x 5 If line 1 is 0, multiply 2 x 3 x 4 x 5			9504	64,350	
7	Divide line 6 by 64,350 and multiply by 100	S_{sw} = 14.77				

AIR ROUTE WORK SHEET

Rating Factor	Assigned Value (Circle One)	Multiplier	Score	Max. Score	Ref. (Section)
1 Observed Release	(0) 45	1		45	5.1
Date and Location:					
Sampling Protocol:					
If line 1 is 0, the S = 0. Enter on line 5. If line 1 is 45, then proceed to line 2.					
2 Waste Characteristics					5.2
Reactivity and Incompatibility	0 1 2 3	1		3	
Toxicity	0 1 2 3	3		9	
Hazardous Waste Quantity	0 1 2 3 4 5 6 7 8	1		8	
	Total Waste Characteristics Score			20	
3 Targets					5.3
Population Within 4-Mile Radius	0 9 12 15 18 21 24 27 30	1		30	
Distance to Sensitive Environment	0 1 2 3	2		6	
Land Use	0 1 2 3	1		3	
	Total Targets Score			39	
4 Multiply 1 x 2 x 3				35,100	
5 Divide line 4 by 35,100 and multiply by 100 S_a = (0)					

	S	S^2
Groundwater Route Score (S_{gw})	4.90	24.01
Surface Water Route Score (S_{sw})	14.77	218.15
Air Route Score (S_a)	0	0
$S_{gw}^2 + S_{sw}^2 + S_a^2$		242.16
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2}$		15.56
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2} / 1.73$		S_M = 9.00

WORKSHEET FOR COMPUTING S_M

RECORD OF COMMUNICATION

☐ PHONE CALL ☐ CONVERSATION ☐ FIELD TRIP ☐ CONFERENCE
☒ OTHER (SPECIFY) Hazardous Waste Site Insp. Report
(Record of item checked above)

TO:	FROM:	DATE / TIME
Dr. Richard Spear	James E. Shirk	3/31/81 10:00 am

SUBJECT

American Cyanamid Company, Linden, New Jersey

SUMMARY OF COMMUNICATION

The twenty five (25) acre landfill is no longer being used for disposal of chemical waste products by American Cyanamid. Cyanuric chloride, calcium cyanide, empty pesticide containers and vanadium pentoxide were landfilled here.

The site has been encapsulated and the cap over the site is compacted, graded, and vegetated. The company maintains the site regularly and it is fenced securely.

There are no public water supplies located near the site. Any potential leachate would enter the Arthur Kill, a source of nonpotable water.

CONCLUSIONS, ACTION TAKEN OR REQUIRED

This site does not appear to pose a significant health hazard. Groundwater is not used for drinking purposes in this area, and the company's disposal practices appeared sound.

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